AADS

Adagio® Audio Distribution System

The Adagio Audio Distribution System (AADS) delivers a complete, low-cost solution for high-performance multi-room audio distribution. Right out of the box, the AADS provides sophisticated audio signal routing, processing, and amplification for up to 6 rooms, controllable from its LCD-driven front panel and a choice of room controllers.

Multi-Room Audio
The AADS supports up to 6 sets of stereo room speakers, allowing listeners in each room to listen selectively to any of 6 different stereo sources. Its integrated multi-channel power amplifier delivers a robust 45 watts per channel to all rooms. Without requiring any programming, the AADS can easily be expanded to support a total of 12 rooms by adding an **AAE Audio Expander**. Or, as many as 24 rooms can be handled using 3 AAE's with simple setup provided by Crestron Adagio Composer software.

High-End Performance
An advanced Class G amplifier topology produces the great sound of a classic Class AB design with near-digital efficiency. A massive MOH-core toroidal power transformer directs pure, continuous power to each channel, achieving exceptional dynamic range and low distortion sound quality in every room. Gentle power-up is achieved through a "soft-start" inrush current limiting circuit, and quick-response output protection on each channel prevents failure caused by speaker line faults and overheating.

Front Panel Control
The AADS's front panel provides for controlling audio to a houseful of speakers, with custom naming of rooms, groups, and sources facilitated on the LCD display. The 6 room select buttons can also be custom labeled using Crestron Engraver software.

Preset Groups
The "Group" feature makes it simple to combine speakers in adjacent rooms, or switch into whole-house party mode, by letting the user link any number of rooms to function as one. Grouping lets you easily route one source to multiple rooms at once without the sync problems common to streaming-based systems. Up to 6 groups can be defined within the "PRESETS" mode.

Versatile Room Controls
A choice of basic 12-button keypads or the advanced **APAD Wall Mount** LCD Controller enables versatile control of the AADS in every room. A keypad provides the essential controls for adjusting volume, selecting sources, and toggling up and down through tracks and radio channels. For more elegant control, the APAD provides true feedback for display of audio sources, radio stations, CD titles, artists, and tracks by name, plus audio settings and many other parameters.

Dual AM/FM Radio and Audio Servers
Two built-in AM/FM radio tuners let listeners in different rooms each enjoy their own choice of music, news, sports and talk. RDS/RBDS enables the display of the full FM radio station name and other information about the song or program that you're listening to.

In addition to radio, 4 line-level inputs are provided to accommodate external audio sources including Crestron's **AAS Audio Server** and **CEN-IDOC Interface for Apple iPod®** . Plug-and-play compatibility with the AAS* and CEN-IDOC* delivers instant access to an entire

collection of music from any room in the house with fully-bidirectional communications for browsing by album, artist, and song title.

For XM Satellite Radio, see **AADS-XM**.

2-Series Ethernet Control System
Adagio brings Crestron's industry-leading Total Home Technology to homes of any size and budget. At the heart of the AADS is the powerful 2-Series control engine. With both Cresnet and Ethernet connectivity, plus custom programmability using Crestron **SystemBuilder™** software, the AADS allows expansion and customization using Crestron's line of touchpanels, wireless remotes, and hundreds of other devices. The built-in Web server with native **e-Control®2 XPanel** support enables full remote control over IP from computers and PDA devices, as well as remote diagnostics and updates. Built-in IR and RS-232 ports are included to interface the AADS with non-Crestron devices ranging from CD changers to security systems.

Home Automation and Integration
More than just an audio distribution system, the AADS can actually grow as part of a complete home automation solution supporting all of Crestron's Cresnet® and infiNET™ controllable dimmers, shade controllers, thermostats, and so much more.

> Out-of-the-box audio distribution for 6 rooms, expandable up to 24

> Front panel setup and control

> Choice of 12-button room keypads or APAD LCD controllers

> Dual built-in AM/FM radio tuners with RDS/RBDS

*> Plug-and-play support for Adagio Audio Server and iPod interface**

> 2-Series Ethernet control system — programmable to support Crestron touchpanels, wireless remotes, lighting dimmers, thermostats, and much more!

AADS Adagio® Audio Distribution System

SPECIFICATIONS

Processor
CPU: 32-bit Freescale ColdFire® Microprocessor

Memory
Flash: 8 MB
SDRAM: 32 MB
NVRAM: 256 KB

Operating System
Real-time, preemptive, multitasking kernel, multi-threaded, FAT32 file system with long names; supports **SIMPL™ Windows®** and **SIMPL+®**

Ethernet
10/100BaseT, static IP or DHCP/DNS, SSL, autonegotiating, full duplex TCP/IP, UDP/IP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron **e-Control 2 XPanel** and **RoomView** applications

Audio
Typical of 6 Room Outputs:
Controls: Volume, Balance, Bass, Treble, Loudness, Mute, Mono, Input Compensation
Volume Gain Range: -80dB to +20dB, 1 dB steps
Mute: -100dB (electronic), -120dB (relay)
Input Compensation: ±10dB
Bass Gain Range: ±12dB @ 100Hz, 2 dB steps
Treble Gain Range: ±12dB @ 10kHz, 2 dB steps
Frequency Response: 20Hz to 20kHz ±0.75dB
S/N Ratio: 98dB, 20Hz to 20kHz A-weighted
THD+N: 0.05%, 20Hz to 20kHz
Stereo Separation: >75dB

FM Tuner
Typical of 2:
Frequency Range: 87.50 to 108 MHz (50 or 100 kHz steps)
Intermediate Frequency: 10.7 MHz
Usable Sensitivity: 11 dBf mono
S/N Ratio: 64dB @ 65 dBf mono; 60dB @ 65 dBf stereo
IF Rejection: 100dB
AM Rejection: 55dB
Stereo Separation: 40dB

AM Tuner
Typical of 2:
Frequency Range: 530 to 1710kHz (9 or 10 kHz steps)
Sensitivity: 3.5µV (RF input level 10dB S+N/N)
Selectivity: 10kHz
Alternate Channel Selectivity: 55dB
Image Rejection: 35dB
IF Rejection: 60dB

Connectors
SOURCES 1 - 4: (16) RCA female providing (4) unbalanced stereo line-level audio inputs with parallel loop-thrus; connect to outputs of source devices, with loop-thru to **AAE**;
Maximum Input: 3.2 Vrms (flat);
Input Impedance: 47k ohms
TUNER OUT A : (2) RCA female providing unbalanced stereo line-level audio output from AM/FM Tuner A; provides tuner output to feed **AAE** audio expander;
Maximum Output: 1 Vrms @ 1kHz;
Output Impedance: 100 ohms
TUNER OUT B : (2) RCA female providing unbalanced stereo line-level audio output from AM/FM Tuner B; provides tuner output to feed **AAE** audio expander;
Maximum Output: 1 Vrms @ 1kHz;
Output Impedance: 100 ohms
NET 1 - 6: (6) 4-pin 3.5mm detachable terminal blocks;
Cresnet Master ports, provide data and power for keypads and other Cresnet devices
IR OUT 1 - 4: (4) 3.5mm TRS mini-phone jacks, IR ports;
IR output up to 1.2 MHz
COM A: (1) DB9 male, bidirectional RS-232 port
Up to 115.2k baud, hardware and software handshaking support
COMPUTER: (1) 6-pin RJ11 female, bidirectional RS-232 computer console port
LAN: (1) 8-wire RJ45 with 2 LED indicators, 10/100BaseT Ethernet port;
Green LED indicates link status, Yellow LED indicates Ethernet activity
NET: (2) 4-pin 3.5mm detachable terminal blocks;
Cresnet Master ports, paralleled with NET ports 1 through 6;
Normally connect to **AAE**(s)
ROOMS 1 - 6: (12) 2-pin 7.62mm detachable terminal blocks, power amplifier outputs;
Wire Size: 12 AWG maximum;
Output Power (per Channel): 45 Watts at 8 ohms, 60 Watts at 4 ohms
FM ANT A - B : (2) IEC 169-2 coaxial (IEC-to-F adapters included);
(2) FM wire antennas included;
Impedance: 75 ohms
AM ANT A - B : (2) 2-pin spring-loaded terminals;
(2) AM shielded loop antennas included;
Impedance: 50 ohms
FUSE: Main fuse, T8AH;
(1/4" x 1-1/4", 250V, 8A, time-lag, high-rupture rated)
120V~50-60Hz: (1) IEC Male; mates with removable power cord (included)
G: 6-32 screw, chassis ground lug

LCD Display
Green LCD alphanumeric, adjustable backlight, 2 lines x 20 characters per line

Controls and LED Indicators
STANDBY: Pushbutton with green LED, places audio in standby
MUTE: Pushbutton with red LED, mutes audio in selected room
MODE/MENU: (8) Pushbuttons, select mode or menu item for adjustment: SOURCE, ROOM, PRESETS, MENU, BKLT, SCHED, DISPLAY, MORE (refer to manual); SOURCE, ROOM, and PRESETS pushbuttons each include a green LED
ROOM: (6) Pushbuttons with green LEDs and backlit labeling strip, select room(s) to adjust
SELECT: 2-position up/down pushbutton with adjoining "enter" pushbutton for selecting rooms, sources, and radio stations
VOLUME: 2-position up/down pushbutton, adjusts volume of selected room
H: Hardware reset button, recessed, reboots the control system
S: Software reset button, recessed, restarts the SIMPL program

Power Requirements
Main Power Consumption: 7 Amps @ 120 Volts AC, 50-60Hz
Available Cresnet Power: 20 Watts (0.83 Amps @ 24 Volts DC)

Environmental
Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 650 BTU/hr @ 8 ohms, 750 BTU/hr @ 4 ohms; all channels loaded to 1/8 full power

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Enclosure

Black metal with molded ABS/PC front panel;
Freestanding, side ventilation should not be restricted

Dimensions

Height: 5.64 in (14.33 cm)
Width: 17.16 in (43.59 cm)
Depth: 18.11 in (45.99 cm)

Weight

38.0 lbs (17.24 kg)

INTERNATIONAL VERSION (230 VAC)

AADSI
All the features and specifications of the AADS except:

Connectors (partial)

FUSE: Main fuse, T4AH;
(5mm x 20mm, 250V, 4A, time-lag, high-rupture rated)
230V~50-60Hz: (1) IEC Male; mates with removable power cord (included)

Power Requirements

Main Power Consumption: 3.5 Amps @ 230 Volts AC, 50-60Hz
Available Cresnet Power: 20 Watts (0.83 Amps @ 24 Volts DC)

AVAILABLE ACCESSORIES

APAD: Wall Mount LCD Controller
C2N-DBF12: 12-Button Decorator Function Keypad
AAE: Adagio Audio Expander
AAS: Adagio Audio Server
CEN-IDOC: Interface for Apple iPod®
STIRP: IR Probe
CNSP-XX: Custom Serial Interface Cable
AAE/AADS FRONT LABEL: Backlit Engravable Label Strip

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